

0099

Lucy
C/O 15/0015 gk

From: "Gefferth, John" <JohnGefferth@consolenergy.com>
To: "Pam Grubaugh-Littig" <pamgrubaughlittig@utah.gov>, "Steve Christensen" ...
Date: 12/6/2007 9:39 AM
Subject: Emery Groundwater, surface water deficiency
Attachments: emgw.dogm.titleblk.pdf; emgwblVI17.pdf; Table VI-17 rev.pdf

Pam/Steve

The attached pdf, emgw.dogm.titleblk.pdf (Plate VI-4, GW and Surface water monitoring site map) answers the deficiency by explaining in the legend the sample parameters of both groundwater and surface sites.

To determine what parameters are required at a particular sample site you need the map and table VI-17 (emgwblVI17.pdf)....Table VI-17 outlines the parameters for surface water sites, ground water sites, and UPDES sites..

Consol was under the impression that this Plate and table were adequate to answer the deficiency.

After talking to Steve yesterday afternoon, we added a listing of the sample sites to Table VI-17 (Table VI-17 rev.pdf) The block in red is what was added this morning.

All of the required data was included in the submittal , the added listing is redundant due to the fact that it was on the Plate.

John Gefferth

Consol Energy

P.O. Box 566

Sesser, Illinois 62884

618-625-6850 office

618-534-5151 cell

618-625-6844 fax

www.consolenergy.com <<http://www.consolenergy.com>>

----- "This communication,
including any attachments, may contain confidential and privileged
information that is subject to the CONSOL Energy Inc.'s Business
Information Protection Policy. The information is intended solely
for the use of the intended recipient(s). If you are not an
intended recipient, you are prohibited from any use, distribution,
or copying of this communication. If you have received this
communication in error, please immediately notify the sender and
then delete this communication in its entirety from your system."

△ UPDES PERMIT	UPDES OUTFALL	MRP POND ID	SWMS (SURFACE WATER MONITORING SITE #)	COMMENT
UT0022616 (DEEP MINE)	001	1	6	U/G PUMP 1 IN SERVICE
	002	2	7	BEHIND SHOP NORTH IN SERVICE
	003	6	12	U/G PUMP 3 IN SERVICE
	004	6	13	FARMERS POND IRR. WATER IN SERVICE (ALTERNATE DISCHARGE FOR 003)
	005	3	14	BEHIND SHOP SOUTH
	006	8	14	IN SERVICE
	007	5	11	IN SERVICE
	009	9	11	4 EAST PORTAL SITE

UPDES OUTFALL # (CORRESPONDS TO APPROVED UPDES PERMIT UT0022616 OUTFALLS)
 MRP POND ID (CORRESPONDS TO POND DESIGN DATA IN DOGM PERMIT 015/015-CHAPTER VI)
 SURFACE WATER MONITORING SITE # (CORRESPONDS WITH BASE LINE AND CURRENT
 MONITORING SITES)



LEGEND

- GROUND WATER MONITORING WELL- QUARTERLY STATIC WATER LEVELS
- GROUND WATER MONITORING WELL- PERIODIC STATIC WATER LEVELS
- GROUND WATER MONITORING WELL- QUARTERLY WATER QUALITY SAMPLES
- GROUND WATER MONITORING WELL- AQUIFER TEST SITE
- GROUND WATER MONITORING WELL- ABANDONED
- Q MONITORED IRRIGATION SEEP
- MONITORED SPRING
- ▲ SURFACE WATER MONITORING SITE
- ▲ UPDES DISCHARGE POINT

N
 I.B.C.
 IBC,
 1-3)

PANY

PLATE VI-4 GROUND WATER MONITORING WELL AND SURFACE WATER MONITORING SITE LOCATION MAP

TABLE VI-17

Emery Mine Hydrologic Monitoring Program

Parameter	Surface Water Monitoring Stations	Wells and Springs	UPDES Outfalls
Field Measurements			
Flow	X		X
Water Level		X	
pH (field)	X	X	X
Sp. Cond. (field)	X	X	
Water Temp. (field)	X	X	
Laboratory Measurements			
Total Settleable Solids	X		
Total Suspended Solids	X		X
Total Dissolved Solids	X	X	X
Total Hardness (as CaCO ₃)	X	X	
Oil and Grease	X		X
Acidity (as CaCO ₃)	X		
Carbonate	X	X	
Bicarbonate	X	X	
Alkalinity (as CaCO ₃)			
Calcium, Total	X		
Calcium, Dissolved	X	X	
Chloride	X	X	
Iron, Total	X		X
Iron, Dissolved		X	
Magnesium, Total	X		
Magnesium, Dissolved		X	
Manganese, Total	X		
Manganese, Dissolved		X	
Potassium, Total	X		
Potassium, Dissolved		X	
Sodium, Total	X		
Sodium, Dissolved		X	
Sulfate		X	

Notes:

- Surface water flows and analytical data are recorded quarterly.
- Water levels in wells are recorded quarterly. Analytical samples are collected from all wells quarterly except the RDA wells, which are sampled annually.
- Spring flows are measured quarterly. Analytical samples are collected from springs during the second and third quarters of each year.
- UPDES outfalls are monitored in accordance with permit UT0022616

TABLE VI-17

Emery Mine Hydrologic Monitoring Program

Parameter	Surface Water Monitoring Stations	Sampled Wells	Other Wells	Springs/Seeps	UPDES Outfalls
Monitoring Site Names	SWMS-1A, SWMS-2, SWMS-3, SWMS-4, SWMS-5, SWMS-8, SWMS-9, SWMS-10	Bryant, Emery Town, I2, Lewis, Kemmerer, RDA-1, RDA-2, RDA-3, RDA-4, RDA-5, RDA-6, SM1-2, SM1-3, SM1-4, T1, TP, USGS1-2, USGS3-1, USGS4-1	AA, EMRIA #1, EMRIA #2, FC346WW, H, I, MUDDY #1, MUDDY #2, MUDDY #4, R-1, R-2, SM1-1, T2, WW1	SP-10, SP-11, SP-13, SP-14, SP-15	001, 002, 003, 004, 005, 006, 007, 009
Monitoring Frequency	Quarterly	Quarterly, except RDA wells (annual)	Quarterly	Quarterly flows. Samples in 2 nd and 3 rd quarters	Per permit
Field Measurements					
Flow	X			X	X
Water Level		X	X		
pH (field)	X	X		X	X
Sp. Cond. (field)	X	X		X	
Water Temp. (field)	X	X		X	
Laboratory Measurements					
Total Settleable Solids	X				
Total Suspended Solids	X				X
Total Dissolved Solids	X	X		X	X
Total Hardness (as CaCO ₃)	X	X		X	
Oil and Grease	X				X
Acidity (as CaCO ₃)	X				
Carbonate	X	X		X	
Bicarbonate	X	X		X	
Alkalinity (as CaCO ₃)					
Calcium, Total	X				
Calcium, Dissolved	X	X		X	
Chloride	X	X		X	
Iron, Total	X				X
Iron, Dissolved		X		X	
Magnesium, Total	X				
Magnesium, Dissolved		X		X	
Manganese, Total	X				
Manganese, Dissolved		X		X	
Potassium, Total	X				
Potassium, Dissolved		X		X	
Sodium, Total	X				
Sodium, Dissolved		X		X	
Sulfate		X		X	